

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested. Claims 1-22 are present in the application, with claims 1 and 21 being independent.

Allowable Subject Matter

The Examiner states on page 2 of the Office Action that claim 22 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. For at least the reasons detailed below, Applicant submits that all pending claims are allowable.

Information Disclosure Statement

Applicant respectfully requests that the Examiner initial the PTO 1449 Form, submitted April 19, 1999, and return the initialed form to the undersigned.

Title Change

Applicant has amended the title to read: "A METHOD AND SYSTEM FOR UPDATING A DATA SYSTEM IN CONJUNCTION WITH SYNCHRONIZED CLOCK MODULES". The title, as amended, conforms to MPEP 606.01.

Accordingly, Applicant respectfully requests that the Examiner withdraw the objection to the title.

Drawings

The Examiner has objected to the drawings because Fig. 6 was not labeled properly. Applicant submits herewith a Drawing Correction Approval Request, whereby Figs. 6a and 6b have now been labeled properly. Accordingly, Applicant respectfully requests that the Examiner withdraw the objection to the drawings. Subject to the Examiner's authorization, Applicant will submit formal drawings upon allowance of the present application.

Claim Rejections Under 35 U.S.C. §103

The Examiner rejected claims 1-21 under 35 U.S.C. 103(a) as being unpatentable over *Reuss et al.* (US 5,579,318) in view of *Yazaki* (US 6,055,545). This rejection is respectfully traversed.

Reuss et al. appears to disclose a process and apparatus for maintaining data concurrence between databases and telecommunication networks. In other words, *Reuss et al.* teaches that separate databases on a network maintain the same data, such that in the event that there is a problem with one database, a second database contains the same data as the database with the problem. *Reuss et*

al., however, fails to teach or suggest that a plurality of user terminals and a server include clock modules for keeping the time between the user terminal and the server, as recited in the claims of the present application.

Reuss et al., in fact, teaches away from this feature. Applicant would like to direct the Examiner's attention to col. 4, lines 42-45, of *Reuss et al.*, wherein it states that "...it is an additional object of the present invention to eliminate the necessity of ensuring that network elements are time-synchronized with each other in order for their databases properly to be maintained concurrent."

The Examiner states on page 3 of the Office Action that *Reuss et al.* teaches a time-synchronized clock at col. 8, lines 11-12. Referring to that cited section of *Reuss et al.*, Applicant fails to see how *Reuss et al.* teaches a time-synchronized clock. At most, *Reuss et al.* teaches at col. 8, lines 11-12, that a message contains a header and a body, whereby the header includes elements needed to route the message to the destination, and the body contains synchronization data. This "synchronous data" is "subscriber-changeable data, which is maintained concurrently in different applications and service control points," see col. 5, lines 35-37. Therefore, as stated above, *Reuss et al.* fails to teach or suggest

a clock module for keeping a time synchronize between the user terminal and the server, whereby each of the user terminals and the server have clock modules.

Yazaki et al. appears to disclose an updating and reference management system and a reference timing control system for a shared memory. *Yazaki et al.* teaches that when different processes access a shared memory at an identical time point, the reference requests by the processes for access to the shared memory, are held in an area management unit in each time interval between control signals, the control signals being generated by the timing unit. The update reference requests are then executed at the time of each control signal, see col. 6, lines 19-43. In other words, the timing unit in *Yazaki et al.* only generates a signal for the area management unit in order to execute an updating request. Therefore, *Yazaki et al.* also fails to teach or suggest that a user terminal and server include clock modules, whereby the clock modules synchronize the time between the user terminals and the server.

Even assuming *in arguendo* that *Yazaki et al.* could be combined with *Reuss et al.*, which Applicant does not admit, *Yazaki et al.* would still fail to make up for the previously mentioned deficiencies of *Reuss*. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejections to claims 1-21.

Conclusion

In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

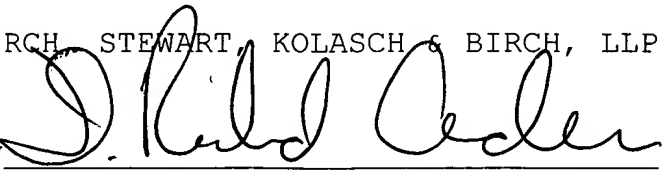
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By


D. Richard Anderson, #40,439

DRA/MRG:tm
2565-0171P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

Attachment: Version With Markings To Show Changes Made
Drawing Correction Authorization Request

(Rev. 12/19/01)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

The claims have been amended as follows:

1. (AMENDED) A data updating system, comprising:

a plurality of user terminals; and

a server for controlling a shared data among users;

wherein the plurality of user terminals and the server include clock modules for keeping a time synchronized between the user terminal and the server;

wherein the user terminal includes an update request transmission processing unit for transmitting a shared data update request to the server by attaching a time obtained from the clock module as a data update issuing time when representing a shared data updating, and for repeatedly transmitting the shared data update request in keeping the data update [issuance] issuing time unchanged until the shared data update request is received by the server; and

wherein the server includes a shared data control module for deciding an updating order of the shared data update request based on an attached data update issuing time of the shared data update request received from the user terminal.

In the Specification:

The title has been rewritten as follows:

[DATA UPDATING SYSTEM AND DATA UPDATING METHOD] A METHOD AND SYSTEM FOR UPDATING A DATA SYSTEM IN CONJUNCTION WITH SYNCHRONIZED CLOCK MODULES.

The first complete paragraph on page 2 of the specification has been amended as follows:

Another example is a case of sharing a file among processes. This is a case where maintaining a file consistency is not as strict, although access from a plurality of processes are permitted. Or, in a case when the data consistency is very important, the exclusive control among processes is provided by using a [semaphoe] semaphore lock mechanism, although this may sacrifice the processing efficiency. Other than the given examples, there are lots of technique relating to the data consistency. To give one concrete example, refer to Japanese Unexamined Patent Publication SHO 62-206935 which discloses a technique to serialize a control file access for 20 the exclusive control of a system resource using updating queue and processing task.

The subheading on page 6, line 3, of the specification has

A

been amended as follows:

[Disclosure] Summary of the Invention

The subheading on page 16, line 16, of the specification has been amended as follows:

{Best mode for carrying out} Detailed Description of the Invention

The second complete paragraph on page 18, lines 13-24, have been amended as follows:

[A] The same user clock module 201 is used in all of the user terminals, including the wireless terminal 101. The user clock module 201 is removable from and attachable to all of the user terminals. The user clock module 201 becomes valid when authenticated by a system controller and when its time is adjusted to a standardized time adopted in the present system. Then the user clock module 201 is distributed to the specified users only. As an example, for a case of adopting the system in the commodities exchange market, the system controller should be performed by an inspecting organization in the market, and the system controller strictly controls the user clock module 201.

The paragraph bridging pages 26 and 27 has been amended as follows:

As described previously, the transmission of the update request data 800 to the server [does not necessarily] will not always be successful [always], depending on the communication media being used by the user terminal at the time. The user terminal attempts a re-trial of the transmission to the server until the communication is successful. Even in the case of re-trial, the terminal communication program 202 will not alter the transmission time 802 in the update request data 800, and re-sends it containing the same transmission time 802 as the initial transmission time. By doing so, even if the user utilized a terminal that does not necessarily guarantee the connection status, it becomes possible to supply the data updating system and method that can execute the data update transaction equally among the users. For the present system, as the communication protocol, a transaction control protocol (TCP) is being used, therefore, whether the update request data is sent successfully or not to the server will definitely be known.